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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,863	10/28/2003	Schang-Jing Hon	BHT-3244-7	4083

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TROXELL LAW OFFICE PLLC  
SUITE 1404  
5205 LEESBURG PIKE  
FALLS CHURCH, VA 22041

EXAMINER
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GUHARAY, KARABI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/693,863

Applicant(s)

HON, SCHANG-JING

Examiner

Karabi Guharay

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on election, filed on 11/04/05.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.  
4a) Of the above claim(s) 1-4 and 12-32 is/are withdrawn from consideration.  
5) ☒ Claim(s) 5-10 is/are allowed.  
6) ☒ Claim(s) 11,33 and 34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/28/03.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### ***Election/Restrictions***

Applicant's election of Group 1a, including claims 5-11 & 33-34, in the reply filed on 11/04/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-4 & 12-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected groups, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/04/2005.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

Figure 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- (1) # 10a in Fig 2 & Fig 6,
- (2) 191, 101', 111-151 in Fig 3 & 3A & in Fig 7,
- (3) all the references in Fig 10 & in Fig 11 & I Fig 12 & Fig 14 are not described in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities: On page 14, line 22, "p-GaN based layer 371 of Fig 3" should be corrected since Fig 3 does not include # 371. Appropriate correction is required.

***Claim Objections***

Claim 10 is objected to because of the following informalities: Claim 10 recites "a transparent contact layer (TCL) formed over said contact layer and conductive and transparent to a light with a wavelength of 400-700nm", however, for better clarity this should be changed to "a transparent contact layer (TCL) formed over said contact layer which is conductive and transparent to a light with a wavelength of 400-700 nm". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11 & 33-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "said In dopant concentration" in line 1. Claim 11 depends from claim 6, which depends on claim 5, since there is no earlier recitation, there is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "said p-type DBR" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Further claim 33, recites "a first MQW active layer over said second MQW active layer" it is not clear what is meant by this. Is it both n-based layer and first MQW resides on the second MQW active layer or over means first MQW is generally disposed over second MQW while there could be another layer between them?

For consideration of merits of claims 33-34 it is considered and the first MQW resides on N-GaN based layer, consistent with the figures.

***Allowable Subject Matter***

Claims 5-10 is allowed over the prior art of record.

Claim 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 33-34 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 5 & 33, the prior art of record neither shows nor suggests a light emitting device comprising all the limitations set forth in claim 5 & 11, particularly comprising first MQW and a second MQW, and the second MQW generates a second wave length and the first MQW generates a first wavelength, wherein second wavelength is larger than the first wavelength, together with other cited limitations.

***Other Prior Art Cited***

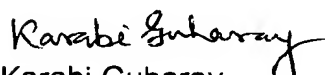
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Kuo et al. (US 6608328); Tanaka (US 6687276); Mizuno (US 6403983); EL-Bahar (US 2004/0179566); Cho et al. (US 2002/0041148).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Karabi Guharay  
Primary Examiner  
Art Unit 2879